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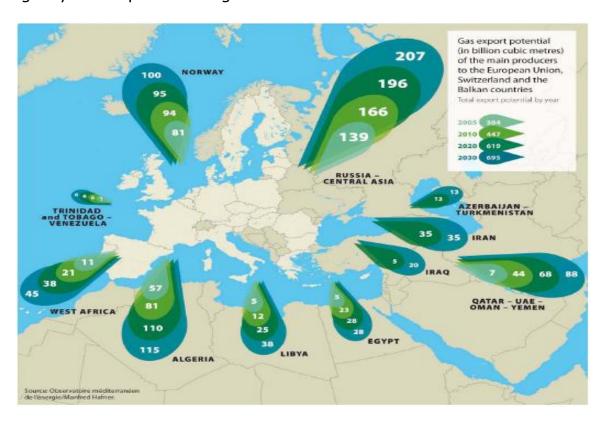
## EASTERN MEDITERRANEAN POLICY NOTE

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## THE STRATEGIC SIGNIFICANCE OF THE MEDITERRANEAN SEA FOR THE EU'S NATURAL GAS SECURITY POLICY

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In late 2009 the energy think-tank OME (Observatoire Méditernannéen de l' Energie) prepared a study on the future of EU gas import security that highlighted the then current as well as the projected flows of gas exports to the EU for 2020 and 2030. The results of the study were part of a background paper that scientifically justified the European Commission's EU Security of Gas Supply Regulation (R.994/2010), the first serious attempt to organize a Union-wide response to serious natural gas supply interruptions by forging a unified response based on solidarity, improved interconnectivity and synchronized prevention and emergency action plans among the various member-states.



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One of the principal conclusions of the study was that although the EU's net import dependency was set to increase over the long-term due to the projected drop in domestic gas supply, the Union would be able to cope with future risks if it increased its internal interconnectivity and completed the integration of its gas markets. This conclusion is still valid today. In the ten years since the last serious EU energy supply interruption, the 2009 Russian-Ukrainian gas crisis, both internal interconnectivity and market integration have improved in the Union.

What has not improved is the level of its net import dependency and the associated political risk of this dependency since (i) LNG imports have seriously decreased as a share of total imports from a high of 22% in 2011 to a low of 15.6% in 2016 according to data compiled by the European Commission and BP¹ and (ii) North African exports have seriously diminished as a result of the Arab Revolts that eliminated Egyptian exports, plunged Libya into a turmoil that has dwindled its oil and gas exports and seriously destabilized Algeria as it was indicated by the Al-Amenas terrorist attack in January 2013.

LNG flows offer importers a high rate of flexibility and supply diversification. You can import LNG from various destinations and re-gasify it within the same LNG terminal. You don't get that kind of flexibility with pipelines. This flexibility is of course tempered by the fact that around 46% of all of EU LNG imports originate from Qatar and must cross through the volatile Hormuz Straits of the Persian Gulf and the increasingly unstable Red Sea energy system that consists of the Suez Canal and the Bab el-Mandeb waterway. On the other hand, the presence of the US military deterrence in Hormuz exercised through the US network of bases in the Gulf and the US/EU deterrence in Bab el-Mandab exercised via US and EU bases in Djibouti effectively mitigate any serious transit risks. No comparable deterrence exists for the Eastern Med.

The Eastern Med was a significant source of LNG exports to Europe through the two Egyptian LNG terminals in Idku and Damietta that up to 2010 supplied primarily Mediterranean EU states with a total of 4,44 bcm.<sup>2</sup> The Muslim Brotherhood revolution of 2011 and the military-led counter-revolution of 2013 dislocated Egypt's economy and its energy system to the extent that it deprived her from of its net export capacity. The current and projected levels of consumption are so steep that Cairo decided to dedicate the entire 30tcf Zhor discovery to meet domestic demand *while also developing* other major offshore gas fields such as the West Nile Delta Project and Atoll.

Ironically enough the loss of Egypt's net export capacity has created the opportunity for new and prospective regional exporters, like Israel and Cyprus to utilize its idle LNG facilities to reach the EU markets. Noble and Delek, the developers of Leviathan gas field in Israel, signed an 64 bcm agreement with

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<sup>&</sup>lt;sup>1</sup> For the 2011 data, <u>European Commission</u>, <u>European Energy Security Strategy</u>, COM (2014) 330 final, 28/05/2014, p.47. 2016 data were analyzed by the author based on the <u>BP Statistical Review of World Energy 2017</u>, p. 34. In 2016 EU states imported around 48,7 bcm of LNG equal to 15,6% of net imports.

<sup>&</sup>lt;sup>2</sup> BP Statistical Review of World Energy 2011, p. 29.

Egyptian gas trader Dolphinous in February 2018 that may lead to the utilization of the Damietta facility if the contracting parties answer the question of how to transport the gas to the Egyptian market. The contract is set to run between 2019-2030.

Getting the gas to Egypt is not an easy answer since the existing infrastructure, the Ashkelon-El Arish gas pipeline, belongs to a bankrupt company with dozens of legal entanglements. A new pipeline to Damietta or Idku would make more political sense especially if it is built jointly by the developers of the Leviathan and Aphrodite fields. Noble and Delek participate in both consortia but this seems to have complicated the development of Aphrodite rather than facilitate it. Noble & Delek who control 65% of the Aphrodite consortium do not want Aphrodite's gas to reach the Egyptian LNG facilities before most of Leviathan's and Tamar's net export capacity is sold to Egypt. Nicosia objects to this and its trying to push the companies in Aphrodite to develop the Cypriot gas field independently.

Egypt's LNG terminals can accommodate both Israeli and Cypriot exports but not up to 100% of their capacity. Israel is set to export to Jordan by 2021 and is keeping the Turkish pipeline option in *stasis*, but Cyprus does not have any other export alternatives. It needs to export most of its gas to the EU via the LNG terminals otherwise the domestic Egyptian market may not prove to be a viable option from an economic standpoint.

Despite Turkey's coercive gunboat diplomacy that blocked ENI's drilling in Block 3 of the Cypriot Exclusive Economic Zone (EEZ) in February 2018, Cyprus is pushing forward with the support of Greece, Egypt and France. Nicosia has made considerable progress and is close to signing-within 2018- an Intergovernmental Agreement (IGA) with Egypt setting the framework for the construction of the pipeline connecting Aphrodite with the liquefaction terminals in Idku or Damietta.

This IGA will mean little though without a long-term selling contract with the terminal operators which is also expected within 2018. If by the early 2020s Cypriot and Israeli gas is fed to Egypt's existing idle LNG facilities that are able to liquefy up to 15,86 bcm/y, then the EU will be importing East Med LNG in significant volumes for the first time since the beginning of the Arab Revolts in early 2011. This could be more, 58% more, than the 10 bcm of the Shah Deniz gas the EU expects to receive by 2020 from the first phase of its Southern Gas Corridor Strategy currently implemented by the TANAP/TAP pipeline system.

The 10-16 bcm/y East Med Gas Pipeline (EMGP) to Greece, a far more ambitious and complex project that is supported by the EC, will need more gas to be discovered in the region before it becomes a serious contender for the export of regional gas to the EU. Only a decision by Israel to unequivocally drop the Turkish option will make the EMGP bankable *before* new gas reserves are discovered in the EEZ of either Cyprus or Israel. The 2009 OME assessment could not have predicted the Arab Uprisings but its expectations of future net export capacity from North Africa have proven to be quite exaggerated, even in the case of Algeria which is set to expand its exports to Europe and Italy via the 8 bcm/y capacity

GALSI project. GALSI was originally scheduled to come on stream in 2018. Construction is expected to begin within this year.

Trans-Med and the Spain-bound, Medgaz and the Maghreb-Europe pipelines, are operating without significant political risks but below capacity, indicative of Europe's reduced demand since 2008 as well as Algeria's underinvestment on its own export potential. Between 2008, the beginning of the financial crisis and 2016 the beginning of sustained recovery, Algerian exports to Italy, France, Spain and Portugal 49,4 in 2008 to less than 40 bcm in 2016. This is starting to change. Algeria provided 55% of Spain's natural gas demand last year, followed by 16% of Italy's and 15% for Portugal. Algiers hopes to continue its production growth through 2017, allowing increased exports to Europe and reverse a multi-year decline in energy industry activity.



Can Algeria alone make a major contribution to EU's increasingly precarious gas security situation? Not likely. If the Trans-Saharan pipeline remains a rather unrealistic prospect Libya appears to be -apart from the East Med- the only other serious candidate to increase the EU's gas import diversification potential.

Libya which exported 10 bcm/y of gas to Italy after the sanctions were lifted on the Qaddafi regime in 2003 has Africa's fifth largest reserves but is utilizing a miniscule fracture. Since the fall of Qaddafi and the ensuing civil war, Libyan gas supplies have fluctuated radically operating at 50% of capacity, at the best case.

Green Stream, the 10 bcm/y pipeline directly linking Libya to Italy, has not operated at even 50% of its pre-War capacity since 2012.

Under its currently chaotic political conditions Libya can barely supply 4-5 bcm/y of gas although its domestic consumption is minimal. It may have Africa's most underdeveloped net export capacity. Without a serious international effort to stabilize Libya this potential will not come on stream and would not alleviate Europe's increasing dependence on Russian gas exports accounting in 2016 for 1/3 of the net EU demand.<sup>3</sup>

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<sup>&</sup>lt;sup>3</sup> Russian exported to the EU around 138 bcm in 2016 which amount to 32,18% of EU gas demand. Calculations are based on data from BP Statistical Review of World Energy 2017, p. 34.